

Serial No.: 10/064,293
Attorney Docket No.: F-533

Patent

Amendment To The Specification

Please amend the specification as follows:

On page 1, please replace the paragraph of the section entitled Cross Reference to Related Applications as follows:

A1
This application is related to commonly owned, co-pending U.S. Patent Application Serial No.: 10/064,294 ~~Not Yet Assigned~~, filed on June 28, 2002 ~~even date herewith~~, entitled SYSTEM AND METHOD FOR A WIRELESS USER INTERFACE FOR BUSINESS MACHINES, ~~assigned attorney docket number F-500~~, which is hereby incorporated by reference in its entirety.

Please replace the following paragraphs as follows:

A2
[0003] Business machines are also found in other environments such as production mail facilities and copy centers. ~~Business Multi-user settings often utilize business machine usage accounting systems~~ are often utilized in multi-user settings for tracking usage of the business machines according to various criteria. Such criteria may include a user identification number, a client identification number and/or a particular matter identification number. The usage accounting systems typically employ a separate accounting processor connected to the business machine having a separate user interface.

A3
[0005] Additionally, certain users may be experienced in the operation of a particular mailing machine and may not require an elaborate user interface. However, certain other users may require a more elaborate user interface, ~~and the~~ The typical mailing machine provides a sufficiently elaborate user interface for use by both the experienced and novice user. Accordingly, a user interface may be more complicated than a particular user requires it to be.

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A4 [0007] In one illustrative embodiment, the system determines position information for an external user interface. It uses that information in determining whether to provide user interface access ~~to~~ for the external processor ~~to a user interface access of a~~ for a particular machine. In an alternative, the external user interface logic is provided to the external processor by the machine.

[0008] In another illustrative embodiment, a portable processor is used to select a file to be processed. ~~The portable~~ Portable processor ~~is then used with~~ position information is used to select a machine to process the file.

[0009] FIG. 1 is a schematic diagram of an illustrative user interface system used in an embodiment of the present application.

[0010] FIG. 2 is a schematic representation of an illustrative user area and user interface system in accordance with an embodiment of the present application.

A5 [0032] Referring to FIG. 1, a first illustrative embodiment of a system according to the present application is described. An external user interface processing system 1 is shown. Authentication servers 60 70 and application logic servers 62 72 are connected to the Internet 10 using communications channels 14 40, 12 respectively. Here, network 10 is the Internet and connections 12, 14 are T1 lines. Mailroom server 20 is connected to Internet 10 using connection 16 that is a T1 line. User 30 has a portable processor 40. Here, the portable processor is a pen-based computer with a ~~Bluetooth~~ BLUETOOTH TM wireless transceiver and an indoor positioning system receiver. Alternatively, a handheld computer such as a PALM Palm or HANDSPRING Handspring computer may be utilized. Similarly, a notebook computer or WINDOWS @ Windows CE platform machine could be utilized. The indoor position system (not shown) provides position information regarding the handheld 40 to server 20.

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A6 [0042] Referring to FIG. 2, another embodiment of the present application is described with a schematic representation of a mailroom. In a second embodiment, an external user interface processing system 200 is shown in a mailroom 201. The mailroom 201 includes walls 204 that define an outer perimeter of a mapped grid area. The mailroom 201 has a door 202 and floor space 204 that is mapped into a grid. Positioning transducers 210, 212, 214, 216 and reference transducer and reference point 218 provide positioning signals to the room 201.

A7 [0048] The building mailrooms 302, 303 include positioning systems 316, ~~[[~~318, and 312, ~~[[~~314 respectively. ~~Here mailroom~~ Mailroom 302 includes has machines 384, 386 having 3-D control areas defined as 324, 326 respectively. Similarly, mailroom 303 has machines 380, 382 having 3-D control areas defined as 320, 322 respectively.

A8 [0056] Referring to FIG. 4, a partial floor grid 401 of a mailroom 400 is shown including machines 480 and 482. In this illustrative alternative example, applicable with any of the embodiments, a two-tier position based priority scheme is shown. It is possible that more than one user, each having an external processor, may be present in the control zone 423 for a machine 482. For example, user A and user B (both not shown), with external processor AP and BP (not shown) respectively are in the control zone 423 of copier 482. Here, a priority section 422 of the control zone 423 is defined ~~422 that is given as~~ having precedence over the other areas of the full control zone 423. Accordingly, if user A is in zone 422, and user B is in the control zone 423, but not in the priority zone 422, user A and will be given control of the machine 482. In an alternative, if both users are in the control zone 423, they are given access on a first-come first served basis and maintain control until relinquished. In another alternative, users machines in the control zone 423 that do not have priority are provided machine status data, but not control ability.

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[0064] Position and ~~Authentication~~ Authentication

A9 [0065] Referring to FIG. 6A, an embodiment of the present application is described in which user position is determined. The process 600 begins in step 601 and proceeds to step 602 to determine position information for users. Several methods may be utilized. For example Here, a server could track multiple handheld devices. [[.]] Additionally, a handheld could report its location to a machine. or a Furthermore, a machine could track handheld devices. In step 604, the process polls to determine ~~determines~~ if any user machine is in the control zone of a machine. In step 606 the user is authenticated. In step 608, the process determines if more than one user is in a control zone. If so, a user priority is determined and control is passed to the only user who has priority. If there is only one user, control is passed to that user. not, control is passed to the priority user. The machine then polls to determine ~~determines~~ whether to remove control access from the handheld in step 614. If the user relinquishes control, the process 600 and loops to the beginning to look for new users if it does.

[0068] ~~achine~~ Machine Access System ~~R~~ System

A10 [0072] In another alternative applicable to any of the embodiments, the machine being controlled requires that the data being sent be cryptographically protected from tampering before being placed into any encrypted communications packet such as WEP. For example, the machine being controlled may include a mailing machine having a postage meter for printing indicia as evidence of postage paid. As described in the related application, the printer in the mailing machine may be secured using cryptographic techniques to defeat ~~avoid~~ fraud attacks ~~attempts~~ such as duplicate prints of the same indicia. Similarly, impersonation attacks could be defeated ~~should be dealt with in~~ such a system.

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Please replace the paragraph of the section entitled Abstract of Disclosure as follows:

A11
A method and system for selecting an external user interface using spatial information is described. In one configuration the floor space of a mailroom is mapped using a two dimensional grid. At least one machine is located on the mapped grid and an associated control zone is defined for that particular machine. The machine includes a wireless transceiver for providing user interface access. An external portable processor with a wireless transceiver is provided with user interface logic for the machine. A user then moves the external portable processor into the control zone of the machine. An indoor positioning system is utilized to provide relative or absolute position information relating to the a machine and the external processor. The system determines that the external processor is in the machine control zone and allows the external processor to function as a user interface for the machine ~~interface with the machine as a user interface.~~